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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,364	07/31/2003	Joseph F. Schoroeder	SP03-099	3990
22928	7590	04/11/2005	EXAMINER	
CORNING INCORPORATED			LIN, TINA M	
SP-TI-3-1			ART UNIT	
CORNING, NY 14831			PAPER NUMBER	
			2874	

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No. .

10/632,364

Applicant(s)

SCHOROEDER ET AL.

*in*

Examiner

Tina M. Lin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-31 is/are allowed.
- 6) ☒ Claim(s) 32-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/23, 1/26, 1/6</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Drawings*

The drawings are objected to because: The drawings filed with this application on 31 July 2003, are objected to as being informal. Notice some of the labels of all of the figures are handwritten. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,637,244 to Erokhin.

In regards to claim 32, Erokhin discloses a transparent body where a laser has etched a figure/pattern predetermined by a computer. But Erokhin fails to disclose the transparent body to be optical. However, Erokhin discloses the transparent material can be organic glass, inorganic glass, light-transparent materials, wide gap semiconductors or transparent polymer materials. Therefore although Erokhin does not explicitly state the transparent material is optical, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a transparent material with optical properties since the materials disclosed by Erokhin have optical properties. Additionally, Erokhin fails to disclose the body to have a cross-sectional width of greater than 22  $\mu\text{m}$ . However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have made a cross-sectional width of greater than 22  $\mu\text{m}$ , since it has been held that where general conditions of a claim are disclosed in the prior art, discovering a workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In regards to claims 33-35, Erokhin fails to disclose a track pattern to have a cross-section with a circular geometry or an oval geometry or having straight side geometry. However, Erokhin does disclose an image to be formed. Although Erokhin does not specify the geometric shape of the track pattern, Applicant also has not disclosed that a specific geometric shape solves any stated problem or is for any particular purpose, and it appears that the invention would perform equally as well with any predetermined shape, which Erokhin is capable of providing;

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therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used the appropriate geometric shape.

***Allowable Subject Matter***

Claims 1-31 are allowed. The prior art of record fails to disclose or reasonably suggest a method of making at least one hole through an optical transparent body including the steps of providing an ultra short pulse laser having a subpicosecond laser pulse duration, providing a laser output focusing lens, providing a 90%/cm optical transparent body, providing a liquid filled container in contact with the transparent body, directing the laser output through the lens to produce a focused laser output, where the laser output forms a tracing of at least one hole track pattern through the transparent glass and where the hole track pattern is contact with the liquid and creates at least one hole. The closest prior art of record in this application is Japanese Patent 405139787 A to Kondo et al. Kondo et al discloses a photosensitive glass plate also etched by a laser and then heat treated to form a three dimensional shaped groove for receiving an optical fiber. However, Kondo et al fails to disclose all the details in the method steps as disclosed by Applicant. Furthermore, Kondo et al. heat-treats a photosensitive glass plate to form an optical fiber receiving hole as opposed to Applicant who acid etches an oxide bulk glass plate to form an optical fiber receiving hole.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference **A** discloses optically etching a transparent material but does not discuss using a liquid to etch the pattern. None of the references cited by the Examiner discloses or reasonably suggests the allowable subject matter discussed above.

The documents submitted by Applicant in the Information Disclosure Statements have been considered and made of record. Note attached copies of forms PTO-1449. None of the references submitted by Applicant discloses or reasonably suggests the allowable subject matter discussed above.

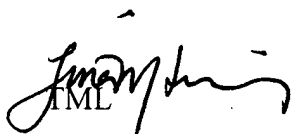
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Lin whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

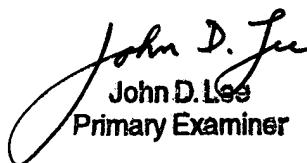
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Handwritten signature of John D. Lee, with the letters "JML" written below the signature.



Handwritten signature of John D. Lee, with the printed text "John D. Lee" and "Primary Examiner" below it.